#### REMARKS

#### A. Status of the Claims

Claims 1, 6-10, 15, 17-23, 29-35, 37, 39, and 40 were rejected in the non-final office action dated June 23, 2010. Claim 10 is canceled. Claims 1 and 19 are amended. Support for the amendments can be found, for example, in the specification at page 3, paragraph [0023]; page 7, paragraph [0066]; page 8, paragraph [0071]; Claims 8 and 31 are amended to correct minor typographical errors. Claim 15 is amended to make the claim language clearer. No new matter has been introduced.

## B. Specification

The examiner urged the title be changed to more closely reflect the subject matter being examined. The title is amended accordingly.

# C. 35 U.S.C. 112 Rejection

Claim 8 was rejected under 35 U.S.C. 112, first paragraph, for allegedly failing to comply with the written description requirement. In particular, the Examiner argued that the recitation of "...lacking nucleotides <u>57109 to 57944</u>..." lacks support in the specification. Applicants respectfully traverse. Paragraph [0012] at page 2 explicitly provides that "from 54807 to 61006, but lacking <u>57109 to 57944</u>...".

Claim 15, 17, and 18 were rejected for allegedly being indefinite. It is believed that amendments to claim 15 obviate this rejection.

## D. Double Patenting Rejection

Cancelation of claim 10 renders this rejection moot.

## E. 35 U.S.C. 102 (b) Rejection

Claims 1, 15, 17-21, 23, and 29-32 were rejected for allegedly being anticipated by Birren (AC10254 in GenEmbl database). Applicants respectfully traverse.

Claims 1 and 19, as amended, recite an isolated polynucleotide/an expression cassette comprising an s-ship promoter operably to a <u>heterologous</u> nucleic acid sequence to be transcribed and said heterologous nucleic acid sequence is not a sequence that operably linked to

an s-ship promoter in nature. The term "heterologous" is clearly defined in the application, for example, in paragraph [0023] of the specification and is not a relative term as alleged by the Examiner. Claim 15 discloses an s-ship gene or a portion of s-ship gene <u>disrupted</u> by the marker sequence. Claim 29 teaches a vector comprising an s-ship promoter.

Unlike the present invention, Birren merely discloses a contig sequence, and nowhere in Birren does it disclose a heterologous nucleic acid sequence. Nor does Birren disclose a portion of s-ship gene or an s-ship gene being disrupted by the marker sequence. It is also clear to a skilled artisan what "a marker sequence" means in the relevant art, therefore claim 15 is not indefinite.

Birren also fails to teach a vector comprising an s-ship promoter. It is well known in the art that the term "vector" is used to refer to a carrier nucleic acid molecule into which a nucleic acid sequence can be inserted for introduction into a cell where it can be replicated, as defined in page 11, paragraph [0099] of the present application. Birren neither teach nor suggest that the contig sequence disclosed therein can be introduced into a cell and replicated.

Since all other claims set forth in the rejection directly or indirectly depend on claims 1, 15, 19 and 29, the above arguments also apply.

Since the cited reference, Birren, does not encompass every limitation set forth in relevant claims, this 35 U.S.C. 102 (b) rejection should be withdrawn.

## F. 35 U.S.C. 103 (a) Rejection

Claims 1, 15, 17-23, 29-35, 37 and 40 were rejected for allegedly being obvious over Birren in view of Alt. Claims 1, 15, 17-23, 29-35, 37, 39 and 40 were rejected for allegedly being obvious over Birren in view of Cooke. Applicants respectfully traverse.

As discussed above, Birren is no more than a contig sequence that provides no contextual information for the sequence. Birren does not indicate any region of the sequence can be a promoter. These deficiencies are not cured by Alt or Cooke, since none of them teach or suggest that the contig sequence of Birren contains a promoter. Consequently, there is no rationale about why any sequence in Birren would be connected to a heterologous nucleic acid sequence.

To establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the cited references. Since the Examiner failed to meet this burden, all §103(a) rejections should be withdrawn.

#### G. Conclusion

In view of the above, applicants believe the pending application is in condition for allowance. The Examiner is invited to contact the undersigned agent at (512) 536-3081 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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